10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MX1 Antibody
Mouse Monoclonal Antibody (Mab)
Catalog # AM2061b

Specification

MX1 Antibody - Product Information

Application	**WB,E**
Primary Accession	P20591
Other Accession	P27594, NP_001138397.1
Reactivity	**Human**
Predicted	**Pig**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG2b**
Antigen Region	**617-646**

MX1 Antibody - Additional Information

Gene ID 4599

Other Names
Interferon-induced GTP-binding protein Mx1, Interferon-induced protein p78, IFI-78K, Interferon-regulated resistance GTP-binding protein MxA, Myxoma resistance protein 1, Myxovirus resistance protein 1, Interferon-induced GTP-binding protein Mx1, N-terminally processed, MX1

Target/Specificity
This MX1 antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 617-646 amino acids from human MX1.

Dilution
WB~~1:500~1000
E~~Use at an assay dependent concentration.

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
MX1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MX1 Antibody - Protein Information

Name MX1

Function Interferon-induced dynamin-like GTPase with antiviral activity against a wide range of RNA viruses and some DNA viruses. Its target viruses include negative-stranded RNA viruses and HBV through binding and inactivation of their ribonucleocapsid. May also antagonize reoviridae and asfarviridae replication. Inhibits thogoto virus (THOV) replication by preventing the nuclear import of viral nucleocapsids. Inhibits La Crosse virus (LACV) replication by sequestering viral nucleoprotein in perinuclear complexes, preventing genome amplification, budding, and egress. Inhibits influenza A virus (IAV) replication by decreasing or delaying NP synthesis and by blocking endocytic traffic of incoming virus particles. Enhances ER stress- mediated cell death after influenza virus infection. May regulate the calcium channel activity of TRPCs.

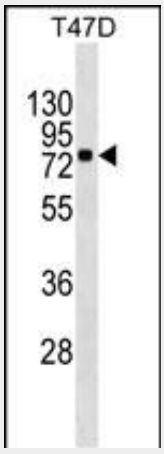
Cellular Location
Cytoplasm. Endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm, perinuclear region. Note=Binds preferentially to negatively charged phospholipids (PubMed:21900240). Colocalizes with CCHFV protein N in the perinuclear region (PubMed:15047845)

MX1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MX1 Antibody - Images



MX1 Antibody (Cat. #AM2061b) western blot analysis in T47D cell line lysates (35µg/lane).This demonstrates the MX1 antibody detected the MX1 protein (arrow).

MX1 Antibody - Background

In mouse, the interferon-inducible Mx protein is responsible for a specific antiviral state against influenza virus infection. The protein encoded by this gene is similar to the mouse protein as determined by its antigenic relatedness, induction

conditions, physicochemical properties, and amino acid analysis. This cytoplasmic protein is a member of both the dynamin family and the family of large GTPases. Two transcript variants encoding the same protein have been found for this gene.

MX1 Antibody - References

Silva, L.K., et al. Eur. J. Hum. Genet. 18(11):1221-1227(2010)
van der Voort, L.F., et al. Neurology 75(14):1228-1233(2010)
Ching, J.C., et al. J. Infect. Dis. 201(12):1899-1908(2010)
Zhijian, Y., et al. Virol. J. 7, 278 (2010) :
Johnatty, S.E., et al. PLoS Genet. 6 (7), E1001016 (2010) :

MX1 Antibody - Citations

- Visualizing infection spread: dual-color fluorescent reporting of virus-host interactions.
- Kinetic Differences and Synergistic Antiviral Effects Between Type I and Type III Interferon Signaling Indicate Pathway Independence.